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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,422	07/30/2003	Andrew L. Adamiecki	Adamiecki 2-6	7836

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MENDELSOHN AND ASSOCIATES PC
1515 MARKET STREET
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PHILADELPHIA, PA 19102

EXAMINER	
JEAN PIERRE, PEGUY	

ART UNIT	PAPER NUMBER
2819	

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/630,422	ADAMIECKI ET AL.	
	Examiner	Art Unit	
	Peguy JeanPierre	2819	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 July 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) *1-3 and 5-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 5-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-3 and 8-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murray (GB2217957) in view of de Couvreur et al.(USP 3,866,147).

Murray et al. disclose In Figure 1, a method of converting analog duobinary signals to binary by comparing (CP1, CP2) the duobinary signals to first (X) and second (Y) reference voltages. A third binary signal is generated through an exclusive-or-gate (G) circuit based on the comparison result. The logical values (I or 0) of the first and second binary signals are generated based on the comparison result of the analog input (Z) and the reference voltages and it is inherent that the logical values on the binary signals are

determined on whether the reference voltage is higher, or lower or equal than the duobinary input signal. Figures 3-5 illustrate different connections of the reference voltages and the analog input signal to the positive and negative inputs of the comparators (CP1, CP2). The connections will inherently affect the logical values of the binary signals generated by the comparator.

Murray disclose essential features of the claimed invention as set forth above except for a splitter that splits the duobinary signal into a first copy and a second copy. De Couvreur discloses in Figure 22 a method of converting a ternary signal (duobinary) to binary signal by splitting the binary signal into a first copy and a second copy. The converter of de Couvreur will detect and minimize errors in transmitting the signal. Therefore, any artisan having working knowledge in the art would have been motivated to have applied the technique of splitting the duobinary signal into a first copy and a second copy before being converted to binary as taught by de Couvreur in the system of Murray to provide an error free converter that is less susceptible to interference and other disturbances.

It is to be noted both comparators of Murray receive the same analog signal having the same amplitude. Like any converter/encoder, the duobinary to binary data converter is an electrical device that can be used in any communication device. Moreover, the threshold voltage can be set based on predetermined criteria. In other words, the threshold voltage can be programmed or pre-programmed or set based on peak detection of the input signal or not on the peak detection of the input signal, or it can be fixed or variable based on the type of converter and its operation.

4. Claims 5-7and 29-30 rejected under 35 U.S.C. 103(a) as being unpatentable over Murray (GB 2217957) and de Couvreur (USP 3,866,147) as applied to claims 1-3 and 8-22 above, and further in view of Varizi (USP .

Murray disclose essential features of the claimed invention as set forth above except for the bandwidth and the bit rate of the input signal and the bandwidth of the comparator. Vaziri et al. disclose in Figure 1, a duobinary to binary encoder circuit which is a high rate system in the order of 10 Gb/s and capable of processing the duobinary signals at at a predetermined bandwidth (see col. 1 lines 16 and lines 30-37). Therefore, it would have been obvious to one having ordinary skill in the art to set the bit rate by increasing the processing rate of the converter as taught by Varizi et al. to provide a converter less susceptible to interference or other forms of disturbances and still capable to operate at a higher frequency.

Response to Arguments

5. Applicant's arguments with respect to claims 1-3 and 5-30 have been considered but are moot in view of the new ground(s) of rejection.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peguy JeanPierre whose telephone number is (571) 272-1803272-1803. The examiner fax phone number is (571) 273-1803.

Peguy JeanPierre
Primary Examiner